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U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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Tungsten, Monthly

## TUNGSTEN IN JUNE 1996

Based upon net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from hydrogen reduced metal powder, the U.S. industrial tungsten activity for June 1996 decreased about 36% compared with that of May 1996, according to the U.S. Geological Survey. U.S. industrial tungsten activity for the first 6 months of 1996 was 2% lower than for the same period of 1995. Reported consumption of tungsten in all end-use products through June 1996 increased by approximately 3% compared with reported consumption of tungsten through the same period of 1995.

May 1996 trade data are included in this issue. Trade data for June 1996 will appear in a subsequent issue.

The combined wolframite and scheelite prices from the Metal Bulletin were:

Low \$45/mtu WO<sub>3</sub> (\$40.82/stu WO<sub>3</sub>), July 1-31, 1996

High \$62/mtu WO<sub>3</sub> (\$56.25/stu WO<sub>3</sub>), July 1-31, 1996

Update.--Avocet Tungsten, a subsidiary of Avocet Mining, plans to bring a calciner on line at Bishop, CA, that is capable of producing tungsten blue oxide. The calciner will be ready sometime in the near future.

TABLE 1  
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate			Reported scrap consumption	Intermediate products		
	Reported consumption	Imports for consumption	Stocks, end of period 2/		Net production 3/	Reported consumption 4/	Stocks, end of period 5/
1995: p/							
January-December	6,320	4,180	631	2,350	8,190	11,900	1,290
1996:							
January	479	310	486	261 r/	718	993	1,220
February	475	162	438	186 r/	933	1,000	1,360
March	504	155	559	223 r/	845	957	1,440
April	517	148	537	218 r/	749	973 r/	1,480
May	447	403	594	211 r/	745	1,030 r/	1,530
June	489	NA	615	205	480	980	1,470
Total	2,910	1,180	XX	1,300	4,470	5,940	XX

p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Reported by consumers.

3/ Net production of tungsten metal powder, tungsten carbide powder, chemicals, and other products.

4/ Includes data on tungsten carbide powder from secondary sources.

5/ Reported by producers.

TABLE 2  
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF  
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
1995: p/			
January-December	2,580 3/	7,690	338
1996:			
January	565	598	370
February	W	630	366
March	556	782	357
April	568	890	331
May	W	737	318
June	544	668	358
Total	2,230	4,310	XX

p/ Preliminary. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Producers and consumers.

3/ Excludes seven months of withheld data.

TABLE 3  
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product	Net production 2/			Stocks at end of period	
	1995 p/	1996	Year to date	1995 p/	1996
Metal powder	2,910	183	2,330	818	947
Tungsten carbide powder (made from metal powder)	5,280	297	2,140	348	323
Cast and crystalline carbide powder; other	W	--	--	W	W
Chemicals	W	W	W	126	200
Total	8,190	480	4,470	1,290	1,470

p/ Preliminary. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross production less quantity used to make other products in table.

TABLE 4  
U.S. REPORTED CONSUMPTION, BY END USE, AND CONSUMER STOCKS OF TUNGSTEN PRODUCTS IN JUNE 1996 1/

(Metric tons, tungsten content)

End Use	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Scheelite (natural, synthetic)	Tungsten scrap 2/	Other tungsten materials 3/	Total	Total year to date
Steel:								
Stainless and heat-resisting	W	--	--	--	W	--	W	W
Alloy	3	--	--	--	--	--	3	10
Tool	17	--	--	--	--	--	17	85
Total	20	--	--	--	W	--	20	95
Superalloys	--	W	2	--	16	--	18	111
Alloys (excludes steels and superalloys):								
Cutting and wear-resistant materials	--	W	559	--	W	W	559	3,310
Other alloys 4/	--	W	W	--	W	--	W	1
Mill products made from metal powder	--	39	--	--	--	--	39	360
Chemical and ceramic uses	--	W	W	--	--	W	W	W
Miscellaneous and unspecified	7	13	324	--	W	W	344	2,070
Total	27	52	885 5/	--	16	W	980	XX
Total consumption, year to date	175	435	5,220 5/	--	91	16	--	5,940
Stocks, June 30, 1996	40	25	411 5/	1	32	17	520	XX

W Withheld to avoid disclosing company proprietary data. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Does not include that used in making primary tungsten products.

3/ Includes tungsten chemicals.

4/ Includes welding and hard-facing rods and materials and nonferrous alloys.

5/ Based on reported consumption plus information from secondary sources; includes estimates.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of origin	Con- cen- trate	Ammonium tungstates	Ferro- tungsten	Lumps, grains, powders	Tungsten carbide	Other e/ 2/	Total	Total year to date
1995:								
Total	4,180	1,290	652	312	476	3,260	10,200	XX
1996:								
March	155	194	103	7	29	260	749	XX
April	148	43	81	31	15	122	440	XX
May:								
Australia	--	--	--	--	--	--	--	3
Austria	--	--	--	--	--	1	1	6
Bolivia	38	--	--	--	--	--	38	228
Canada	--	--	--	(3/)	4	--	4	25
China	--	72	67	--	8	189	336	1,780
Czech Republic	--	--	--	--	--	--	--	6
Germany	--	(3/)	--	8	10	(3/)	18	110
Hong Kong	--	--	13	--	--	67	80	152
Hungary	--	--	--	--	--	1	1	3
Israel	--	--	--	--	--	2	2	4
Japan	--	--	--	9	--	4	13	38
Korea, Republic of	--	--	--	--	--	--	--	6
Mexico	14	--	--	--	--	1	15	31
Netherlands	49	--	--	--	--	1	50	53
Peru	22	--	--	--	--	--	22	239
Portugal	--	--	--	--	--	--	--	81
Russia	221	--	--	--	--	14	235	679
Sweden	--	--	--	7	--	(3/)	7	13
Switzerland	--	--	--	--	--	(3/)	(3/)	2
United Kingdom	60	--	--	83	--	(3/)	143	229
Uzbekistan	--	--	--	--	--	--	--	30
Total	403	73	80	108	21	280	964	XX
Total, year to date	1,180	655	295	208	145	1,240	XX	3,720

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes calcium, potassium, and sodium tungstates, mixtures and materials in chief value tungsten, tungsten oxide, tungstic acid, unwrought ingots and shot, other unwrought tungsten and materials, wrought tungsten, and other tungsten compounds.

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in May 1996 totaled 279 metric tons, tungsten content.

Source: Bureau of the Census.

TABLE 6  
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of destination	Con- cen- trate	Ammonium tungstates	Metal powder e/	Tungsten carbide	Other e/ 2/	Total	Total year to date
1995:							
Total	5	238	484	1,670	369	2,760	XX
1996:							
March	--	--	11	132	35	177	XX
April	--	30	26	94	28	178	XX
May:							
Argentina	--	--	1	--	(3/)	1	1
Australia	--	--	--	(3/)	--	(3/)	7
Austria	--	--	--	9	--	9	11
Belgium	--	--	--	(3/)	--	(3/)	3
Brazil	--	--	--	1	(3/)	1	5
Canada	--	--	4	21	2	28	207
China	6	--	--	--	(3/)	6	20
France	--	--	--	(3/)	1	1	22
Germany	--	--	3	9	1	13	192
Hondruas	--	--	--	--	--	--	18
Hong Kong	--	--	--	--	1	1	4
India	--	--	--	--	(3/)	(3/)	7
Ireland	--	--	--	(3/)	(3/)	(3/)	2
Israel	--	--	14	1	(3/)	16	20
Italy	--	--	--	10	1	11	51
Japan	(3/)	--	--	2	2	4	80
Korea, Republic of	--	--	--	(3/)	1	1	7
Luxembourg	--	--	--	2	--	2	8
Mexico	--	--	--	(3/)	3	3	17
Netherlands	--	--	--	--	--	--	7
Singapore	--	--	12	(3/)	(3/)	12	15
South Africa	--	--	--	1	--	1	14
Spain	--	--	(3/)	--	1	1	3
Sweden	--	--	(3/)	5	(3/)	6	48
Switzerland	--	--	--	1	(3/)	1	4
Taiwan	--	--	(3/)	8	1	10	26
United Kingdom	--	--	(3/)	4	2	6	39
Venezuela	--	--	--	--	--	--	2
Total	6	--	35	75	19	136	XX
Total, year to date	13	49	114	533	132	XX	841

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes calcium, potassium, and sodium tungstates, mixtures and materials in chief value tungsten, tungstic acid, unwrought ingots and shot, other unwrought tungsten and materials, wrought tungsten, and other tungsten compounds.

3/ Less than 1/2 unit.

Note: Exports of waste and scrap in May 1996 totaled 22 metric tons, tungsten content.

Source: Bureau of the Census.